

Executive Summary

1. Background

Energy is one of the most critical components of infrastructure that determines the economic development of a country. The growth rate of demand for power is generally higher than the GDP growth rate. The XI Five Year Plan emphasized the need for removing infrastructure bottlenecks for sustained growth and proposed an investment of around ₹ 21 lakh crore in infrastructure sectors. Considering the magnitude of expansion the power sector required, Government of India (GOI) decided (November 2005) to develop Ultra Mega Power Projects (UMPPs)¹, each with a projected capacity of around 4000 MW and cost of ₹ 16,000-20,000 crore. Ministry of Power (MOP) designated (November 2005) Power Finance Corporation Limited (PFC) as the nodal agency for the purpose of development of UMPPs through Special Purpose Vehicles (SPVs).

2. Status of Ultra Mega Power Projects

Out of 16 UMPPs identified so far (March 2012), PFC floated 12 SPVs as its wholly owned subsidiaries for development of UMPPs. The main activities undertaken by the SPVs are appointment of consultants, preparation of bid documents, evaluation of bids and award of projects, acquisition of land, fuel tie-up and obtaining various statutory clearances.

SPVs invited bids for six UMPPs during March 2006 to March 2012 and awarded four UMPPs, viz. Sasan in Madhya Pradesh, Mundra in Gujarat, Krishnapatnam in Andhra Pradesh, and Tilaiya in Jharkhand to the identified Developers. The remaining eight UMPPs are yet to be awarded. One unit of 800 MW of the Mundra UMPP was commissioned in February 2012.

¹ *UMPP is an ultra mega power project using supercritical technology having a capacity of around 4000 MW and is developed on Build, Own and Operate (BOO) basis.*

3. Process of Selection of Project Developers for UMPPs

For selection of Project Developers two stage bidding was adopted. In the first stage called 'Request for Qualification' (RFQ), the bidders satisfying the minimum technical and financial criteria were shortlisted. The bidders successful in the first stage were eligible to participate in the next stage called 'Request for Proposal' (RFP) and were required to quote the tariff for 25 years from the Scheduled Commercial Operation Date of the concerned UMPPs.

After evaluation of bids jointly with professional consultants (M/s Ernst & Young), four UMPPs viz. Sasan, Mundra, Krishnapatnam and Talaiya were awarded to prospective Developers at lowest levelised tariff², which ranged between ₹ 1.196 and ₹ 2.333 per unit of electricity.

4. Audit scope and objectives

The concept of UMPPs was conceived by MOP in 2005 in the backdrop of growing demand for power. To address the deficit, a need was felt for development of large capacities in power sector in India and to bring in potential private investors for developing such projects at a stage having major clearances, fuel tie-up and sale of power agreements in place. The UMPPs would meet the power needs of a number of states/distribution companies located in the states and were to be developed on a Build, Own and Operate (BOO) basis through creation of "Shell" companies³. Each UMPP was projected to have a capacity of around 4,000 MW with cost ranging between ₹ 16,000 - 20,000 crore per project.

Audit was conducted to obtain a reasonable assurance on the competitiveness of the Standard Bidding Documents, bidding process and to assess whether selection of the Project Developers/consultants was done with objectivity and in a transparent manner and whether land was acquired and captive coal blocks were allocated to the Developers as per their optimum requirement.

Audit commenced (January 2009) with Entry Conference with PFC and was completed in September 2009. The significant issues noticed during the audit were flagged to PFC and MOP in June 2010 and August 2010 respectively. An Empowered Group of Ministers (EGOM)⁴ was constituted to take all major decisions concerning

² *Tariff consists of escalable and non-escalable components. While levelised tariff to identify the lowest bidder was calculated on the basis of escalation rates notified by CERC for bid evaluation purpose as per the trend of last twelve year data, payment of tariff to the Developer would be made at the actual escalation rates notified by CERC twice a year based on previous years' data.*

³ *It is a company which serves as a vehicle for business transactions without itself having any significant assets or operations.*

⁴ *Constituted (June 2007) to expedite the decision making process for UMPPs.*

UMPPs including coal linkage. Since a very important role was played by MOP in this, audit was again conducted in August–September 2011 to assess the action taken by the Management/MOP (including EGOM) on the issues flagged to them. The draft report was issued to MOP in October–November 2011 and their response was received in December 2011/January 2012. The Exit conference with the Ministry and Management of PFC was held in February 2012. After incorporating the views of the Ministry, the draft Audit report was again issued to MOP in March 2012. This was followed by another Exit conference in March 2012.

This Audit Report has been finalized after incorporating the views of MOP.

5. Major Audit Findings

5.1 Appointment of bid process management consultant

Though the lowest bidder (M/s ICRA) was declared technically qualified for the consultancy assignments for two UMPPs (Sasan and Mundra) by the bid evaluation committee, their bid was not considered and the contract was awarded at a higher price to M/s Ernst & Young (M/s E & Y), on the ground that they had advised on bid process management of a power project in Bangladesh. M/s. E&Y was also awarded the consultancy assignment for Krishnapatnam UMPP. The consultancy work for Tilaiya Project was also awarded to M/s. E&Y without inviting bids. Thus, principle of equity in public procurement laid down in the General Financial Rules of the GOI was not followed while awarding consultancy assignments to M/s E&Y. Later, PFC debarred them for three years for their lapses in bid evaluation.

(Para 3.2)

5.2 Bid Documentation

Audit observed that the Bid Documents used for calling bids in respect of UMPPs awarded were not vetted by the Department of Legal Affairs. Further, softening of the following conditions in the Standard Bidding Documents (SBDs) was carried out by MOP from time to time based on feedback received from the bidders and recommendation of PFC.

(Para 3.3)

5.2.1 Change in equity holding requirement of Parent/Affiliate

As per the bid criteria, a bidding company could take 100 per cent benefit of the technical and financial capability of a Parent or its Affiliates for the purpose of qualification. As per the initial bid document issued in March 2006, the equity holding requirement of such Parent/Affiliate in the bidding company was 51 per cent but after pre-bid conference with bidders, the equity holding requirement was

scaled down from 51 per cent to 26 per cent in May 2006. The change which was made based on feedback from bidders and advice of the consultant M/s. E & Y violated the basic principle of 'ownership' and 'control' given in Accounting Standard Interpretation (ASI) 24 issued by the Institute of the Chartered Accountants of India. ASI 24 defines 'control' as 'the ownership, directly or indirectly through subsidiary(ies), of more than one-half of the voting power of an enterprise or control of the composition of the Board of Directors in the case of a company so as to obtain economic benefits from its activities'. Model RFQ document of Government of India for PPP projects also prescribes more than 50 per cent shareholding as the criteria.

{Para 3.3.1(i)}

5.2.2 Reduction of Normative Availability and Penalty

The normative availability⁵ for UMPPs was reduced from 85 per cent to 80 per cent on the suggestion of PFC. For the levy of penalty, the base was reduced from 80 per cent to 75 per cent before receiving financial bids. Audit observed that since the UMPPs were meant to have higher operational efficiency, this reduction in normative availability and penalty base was not in the interest of operational efficiency of UMPPs.

{Para 3.3.1(ii)}

5.2.3 Dilution of equity lock-in requirements for the sponsoring entity

Equity lock-in requirement for the selected bidder in the SPV was reduced from 12 years from Commercial Operation Date (COD) to 5 years for Krishnapatnam and Tilaiya UMPPs after award of Sasan and Mundra UMPPs. In addition, in all the 4 UMPPs the Developers were permitted to cede managerial control (i.e. equity holding can be reduced from 51 per cent to 26 percent) after two years of commercial operation, even though the quoted tariff was valid for 25 years.

Allowing the Developers to cede management control after 5 years of the COD may not be advisable since adequate backing of the sponsoring entity would be lacking for the SPVs during the major part of the operational period. Moreover, this may not also provide a safeguard against the Developer using substandard capital equipment which may breakdown frequently during the operational period after control is ceded.

{Para 3.3.1(iii)}

5.2.4 Lower net worth requirement for bidders

Minimum net worth of ₹ 1,000 crore (which is 5 per cent of ₹ 20,000 crore being the project cost) prescribed in the bid documents of all four UMPPs was on lower side

⁵ *Availability means the quantum of time that a power plant is able to produce electricity over a certain period divided by the amount of time in the period.*

when compared to minimum net worth requirement of 15 per cent fixed by Ministry of Finance for PPP project costing ₹ 1,000 crore or more. Audit is of the opinion that fixing low net worth criteria involves unwarranted risk for the UMPPs.

(Para 3.3.2)

6. Gaps in Bid Evaluation

As per the minimum technical qualifying criteria stipulated in RFQ document, the Bidding Company or a Consortium Member (including Lead Member) and Affiliate must meet technical requirement of having experience of developing projects in the last 10 years whose aggregate capital costs must not be less than ₹ 3,000 crore. Out of these projects, the capital cost of at least one project should be equivalent to or more than ₹ 500 crore.

Audit observed that in all the three UMPPs which were awarded to the Project Developer, Reliance Power Limited (RPL), they claimed having experience of developing projects based on additions to the fixed assets (₹ 3,123.88 crore for Sasan & Mundra, ₹ 2,137.49 crore for Krishnapatnam and ₹ 2,254.61 crore for Tilaiya UMPPs) during the last 10 years despite the fact that only capital cost of projects commissioned during the last 10 years was eligible to be counted for project experience.

{Para 4.2(i)}

7. Excess acquisition of land

Central Electricity Authority finalized its report on land requirements for thermal plants in December 2007. Audit noticed that when compared to these new norms, land agreed for Mundra and Krishnapatnam was in excess by 1538 acres and 1096 acres respectively. EGOM allowed the excess land to be retained by the Developers instead of utilizing the same for other 'Public purpose.'

The excess value inherent in the extra land allocated should be suitably monitored in the interest of the State and the power consumers.

(Para 4.3)

8. Financial benefit to Project Developer

Three coal blocks viz. Moher, Moher-Amlohri Extension and Chhatrasal were allocated to Sasan UMPP to meet its coal requirement of 16 Million Tonne per annum. In November 2007, Chief Minister of Madhya Pradesh requested the Prime Minister, to allow RPL to use the surplus coal from the captive blocks of Sasan UMPP in the power plant being set up by RPL at Chitrangi tehsil in the vicinity of these

mines. The matter was referred to EGOM and the issue was deliberated in the two EGOM meetings held on 28 May 2008 and 14 August 2008. EGOM recommended that RPL be allowed to use the surplus coal from blocks allotted to Sasan UMPP for its other projects where power was sold through tariff based bidding. Accordingly, the permission was accorded.

While this decision resulted in financial benefit of ₹29,033 crore with a net present value (NPV) of ₹11,852 crore to the Project Developer, a detailed analysis of the chronology of events which took place in granting permission for use of surplus coal at Chitrangi Project from the coal blocks allocated for Sasan Project, also revealed as under:

(a) Allocation of surplus coal

- (i) It is not clear how MOP on 9 October 2006 came to the conclusion that the two initially allocated blocks for the Sasan UMPP would be inadequate.
- (ii) The basis on which MOC was prevailed upon in October 2006 itself to allot an additional block (Chhatrasal) of coal to Sasan UMPP by de-allocating it from the Public Sector NTPC is not clear.
- (iii) Till March 2009, MOC was taking the stand that coal from two blocks (Moher and Moher-Amlohri Extension) was sufficient for the Sasan UMPP and that there is no justification for allocating a third block (Chhatrasal) to the Developer.
- (iv) In March 2008, RPL maintained that there was no possibility to enhance production beyond 12 million tonne from the two blocks of Moher and Moher-Amlohri Extension.
- (v) However, on 6 August 2008, RPL intimated of their intention to use latest world class technology leading to increased recovery factor and higher annual production leading to the mined coal from these three blocks becoming surplus to the requirement of Sasan UMPP.
- (vi) This indeed was the position which the Chief Minister of Madhya Pradesh was aware of when he wrote to the Prime Minister in November 2007 itself seeking diversion of the surplus coal to Chitrangi.
- (vii) This revelation by RPL, provided to the EGOM in its meeting on 14 August 2008, led to their deciding that indeed surplus coal would be available and this could be diverted to other projects.

(b) Vitiating of the Bidding Process

The permission to use surplus coal in other projects of the Developer vitiating the sanctity of the bidding process since it amounts to post bid concessions to the Developer having significant financial implication as explained below:

- The EGOM in its meeting held on 28 May 2008 had sought information about structure in respect of ownership, mode of sale of power and tariff of Chitrangi Project. However, without getting this information from Madhya Pradesh Government, EGOM recommended (14 August 2008) granting of permission for usage of incremental coal.
- EGOM in its meeting held on 14 August 2008 had recommended that power generated by utilizing incremental coal from captive coal blocks of Sasan UMPP **would be sold through tariff based competitive bidding**. But RPL was granted permission by MOC (February 2010) to use the surplus coal in Chitrangi Project **the tariff of which was already accepted in May 2008 at ₹2.45 per unit i.e. prior to the EGOM decision on usage of surplus coal for Chitrangi Project**. For this purpose RPL had bid along with other bidders citing independent fuel arrangement (from Mahanadi Coalfields Limited/112.22 million tonne of coal reserves in the Rampia and dip-side of Rampia non-coking coal blocks in the state of Odisha).
- The clauses of the coal allocation letter do not explicitly state that Central Government would indeed grant permission to the Developer to use the surplus coal in their other projects. This fact was not disclosed upfront in the allocation letters and in the absence of clarity on this issue, it was left to the bidders to interpret the implication of the clauses of allocation letter. The relevant clauses in the allocation letter are reproduced below:

'The coal produced from these mines would be exclusively used in the Sasan UMPP'- Clause (i).

'The modalities of disposal of surplus coal/middlings/rejects, if any, would be as per the prevailing policy/instructions of the Government at the relevant point in time and could also include handing over such surplus coal/middlings/rejects to the local CIL subsidiary or to any person designated by it at a transfer price to be determined by the Government.'- Clause (vi).

'No coal shall be sold, delivered or disposed of except for the stated captive mining purposes except with the previous approval of the Central Government.'- Clause (xii).

A normal understanding of reading these three clauses would imply the meaning that they are restrictive and designed to ensure non-diversion of coal.

- This seems to have been the conclusion that even NTPC came to as they did not factor into their bid the possibility of using the surplus coal from the captive mines of Sasan UMPP.
- M/s. Tata Power Company Limited, which was also a bidder for the Sasan UMPP has also contested the post-bid permission of surplus coal diversion facility to RPL as that was not their understanding either, from a reading of the pre-bid conditions. A special leave petition filed (May 2009) by Tata Power Limited against permission to RPL to use surplus coal from captive coal mines of Sasan UMPP is pending in the Hon'ble Supreme Court of India.
- The Inter Ministerial Group (IMG), while deliberating on the safeguards issue against misuse of coal mine noted in September 2007 that the allocation of coal mine had an explicit condition that its coal should be used solely for the purpose of the Sasan UMPP or else the lease was liable to be cancelled. This IMG was constituted in August 2007 by the MOP on the recommendation of EGOM to review the Standard Bidding Documents for UMPPs.
- Since fuel cost is an important aspect of commercial consideration in arriving at the tariff, any relaxation of condition subsequent to bidding would vitiate the bidding process. As explicit mention of usage of surplus coal in other projects was not unambiguously transparent in the coal block allocation letters, the bidders who lost out did not have equal opportunity to bid under the relaxed condition.

To sum up, the conclusion that can be drawn is:

- (i) The advice of MOP in October 2006 that Sasan UMPP would require an additional coal block was based on insufficient data as mining plan of Moher and Moher-Amlohri Extension was not available.
- (ii) The condition purportedly permitting diversion of surplus coal was not explicitly stated in the bid document.
- (iii) The EGOM evidently was not provided accurate information about adequacy or otherwise of coal availability in the two blocks initially

allocated to Sasan UMPP leading to their decision permitting usage of surplus coal.

- (iv) Permission to utilize surplus coal for projects with tariff based competitive bidding has been violated since tariff for Chitrangi Project, for which such permission was granted, was already fixed before the permission was granted.

Government need to generate confidence among bidders of future UMPPs of its equity and fairness. Audit would recommend that to ensure fair play, a level playground and transparency of the bidding process for future Developers to derive comfort in Government action, the allocation of the third coal block (Chhatrasal) be appropriately reviewed. Since the Developer had committed that he would be able to source 20 million tonne from the two blocks (Moher and Moher-Amlohri Extension) there would be adequate coal to feed the Sasan UMPP.

{Para 5.1 & 5.2}

9. Conclusion

Permission for use of excess coal by RPL from the three coal blocks allocated to Sasan UMPP after its award not only vitiated the bidding process but also resulted in undue benefit to RPL.

To ensure fair play, a level playground and transparency of the bidding process for future Developers to derive comfort in Government action, the allocation of the third coal block (Chhatrasal) be appropriately reviewed. Since the Developer had committed that he would be able to source 20 million tonne from the two blocks there would be adequate coal to feed the Sasan UMPP.